

FIG. 1



096807-44350  
226

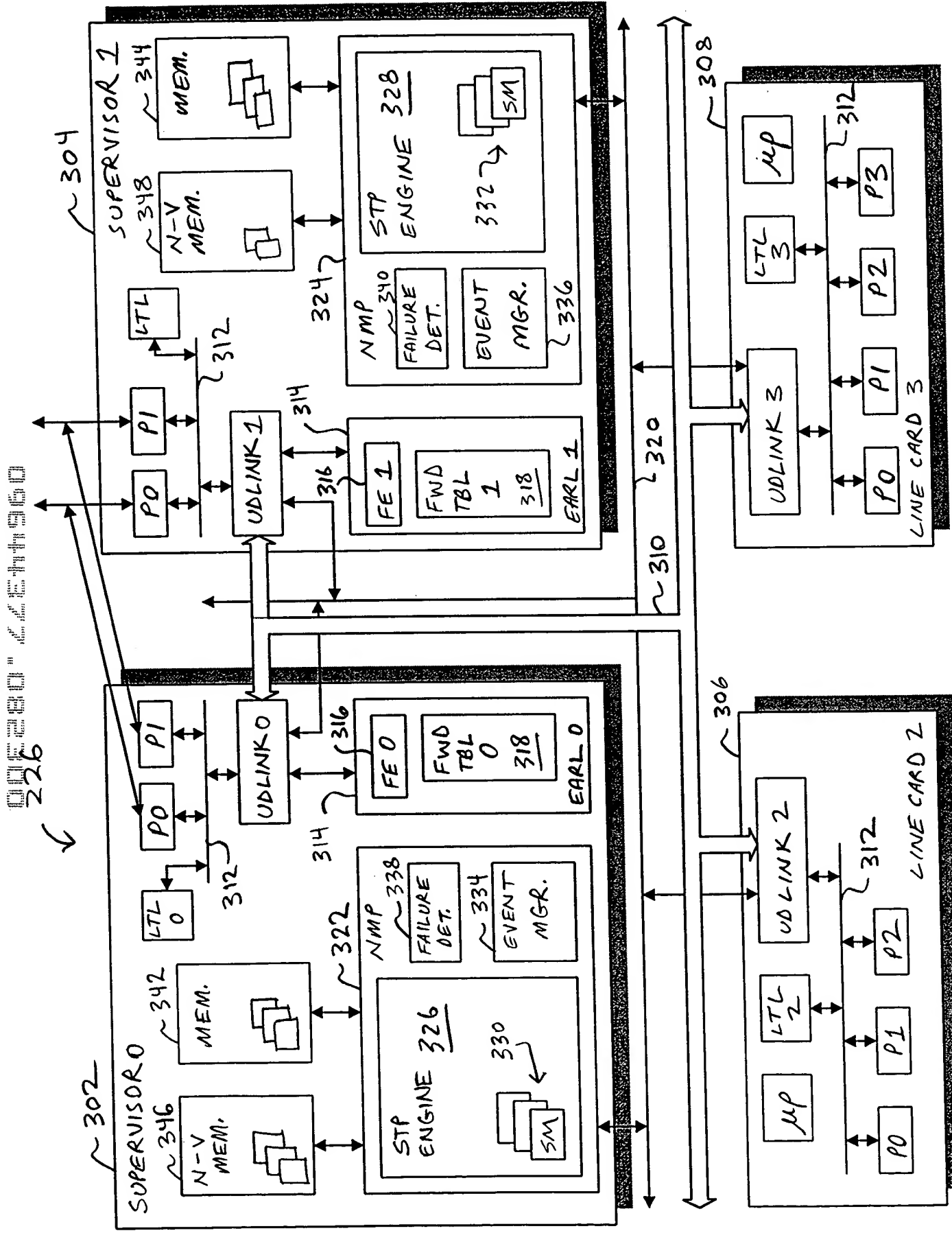


FIG. 3

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graph TD
    402[UPON START-UP OF SWITCH, SPANNING TREE PROTOCOL ENGINES INITIALIZE SPANNING TREE DATA STRUCTURES] --> 404[SUPERVISOR CARDS DESIGNATE ONE OF THEM TO BE THE ACTIVE SUPERVISOR, AND DESIGNATE THE REMAINING SUPVISOR CARD(S) TO BE STANDBY SUPERVISORS]
    404 --> 406[SYNCHRONIZE THE SPANNING TREE PARAMETERS AT THE STANDBY SUPERVISOR(S) WITH THE CORRESPONDING PARAMETERS AT THE ACTIVE SUPERVISOR]
    406 --> 408[SPANNING TREE PROTOCOL ENGINE AT THE ACTIVE SUPERVISOR RUNS THE SPANNING TREE PROTOCOL, LOADING THE SPANNING TREE DATA STRUCTURES WITH COMPUTED VALUES]
    408 --> 410[SPANNING TREE PROTOCOL ENGINE AT THE ACTIVE SUPERVISOR NOTIFIES THE STANDBY SUPERVISOR(S) OF CHANGES AFFECTING THE SPANNING TREE TOPOLOGY]
  
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FIG. 4

500  
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<b><u>BRIDGE DATA STRUCTURE</u></b>	
Root Bridge Identifier (ID)	~502
Root Path Cost	~504
Root Port	~506
Maximum Age Time	~508
Hello Time	~510
Forward Delay Time	~512
Bridge Identifier (ID)	~514
Bridge Maximum Age Time	~516
Bridge Hello Time	~518
Bridge Forward Delay Time	~520
Topology Change Detected Flag	~522
Topology Change Flag	~524
Topology Change Time	~526
Spanning Tree Statistics	~528
Port Database Array Pointer	~530

FIG. 5

00E280" 4E44960

600

<u>PORT DATA STRUCTURE</u>	
Port Identifier (ID)	~ 602
Port State	~ 604
Designated Bridge Identifier (ID)	~ 606
Designated Bridge Port Identifier (ID)	~ 608
Designated Bridge Root Port Path Cost	~ 610
Designated Root Identifier (ID)	~ 612
Topology Change Acknowledgment	~ 614
Configuration BPDU	~ 616
TCN BPDU	~ 618
Port Next State	~ 620
Configuration BPDU in Process	~ 622
High Availability Recovery Pending	~ 624
Port Statistics	~ 626
Port Data Structure Pointer	~ 628

FIG. 6

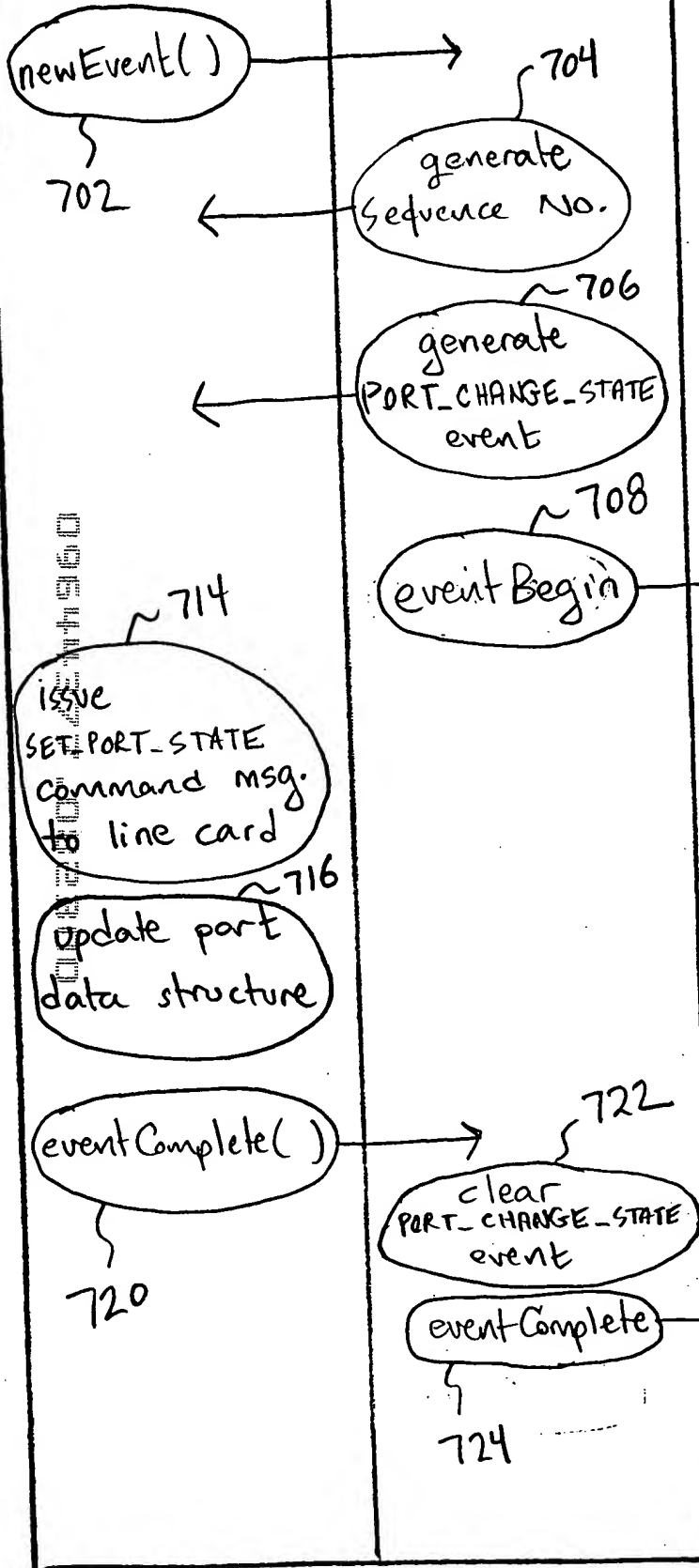
00E280" 2E44960

ACTIVE

301

STANDBY

302

STP Engine  
328Event Mgr.  
336

334 Event Mgr.

326 STP Engine

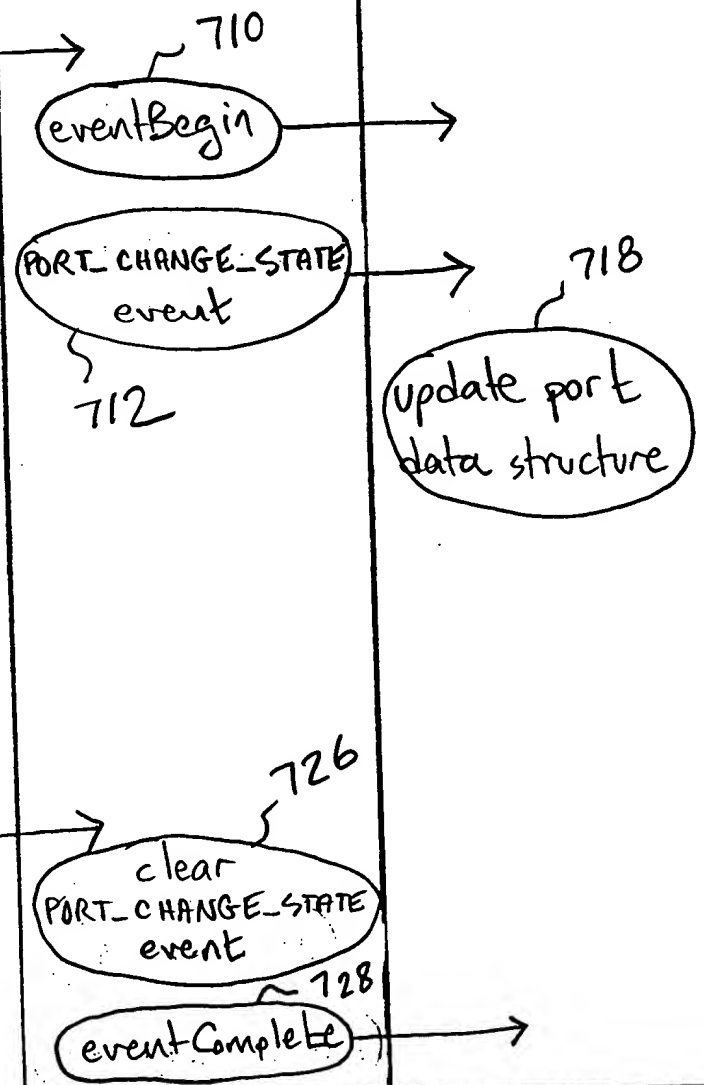


FIG. 7

ACTIVE

304

STANDBY

302

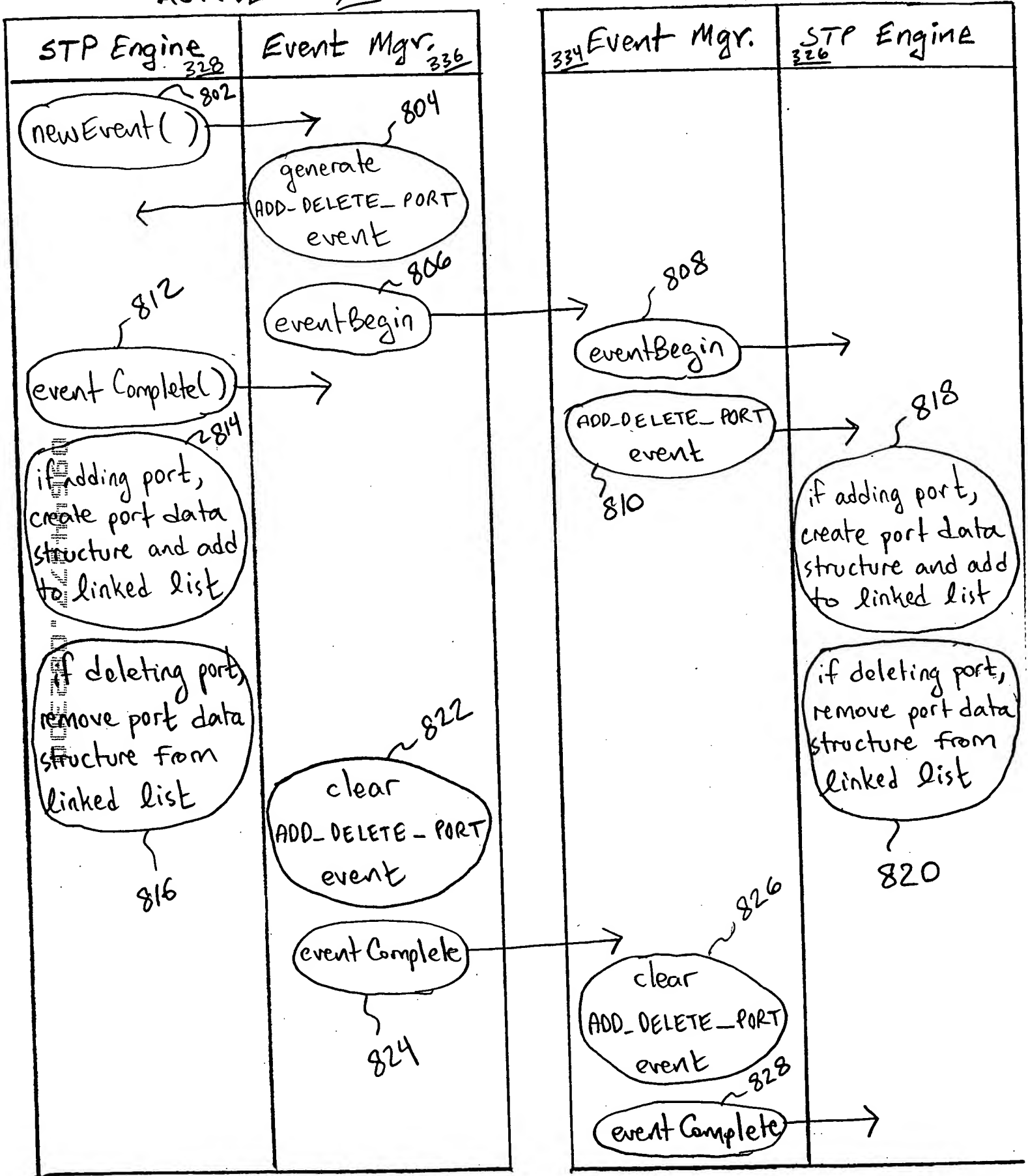


FIG. 8



ACTIVE

304

STANDBY

302

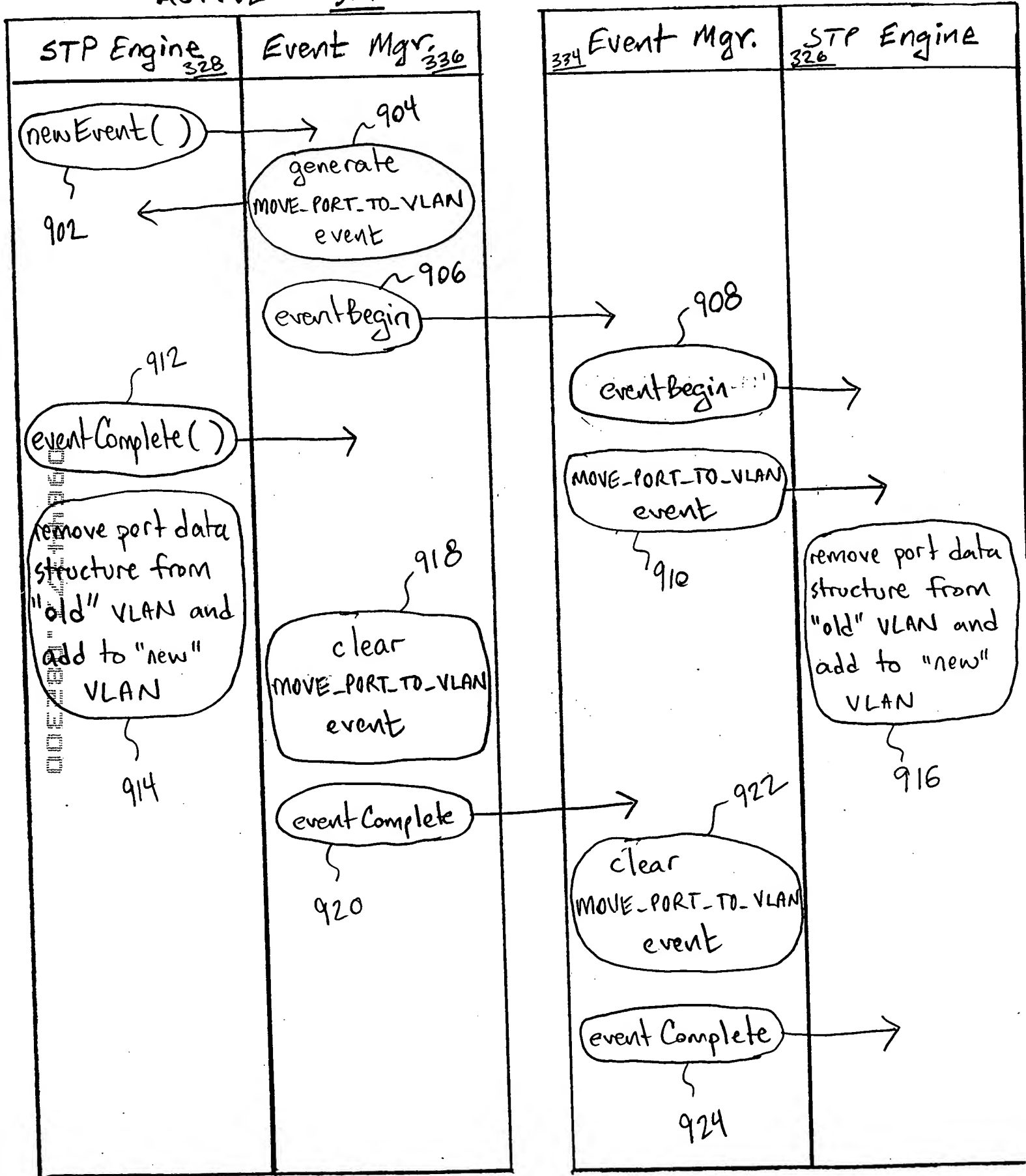


FIG. 9

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graph TD
    1002[CRASH OR FAILURE AT THE ACTIVE SUPERVISOR IS DETECTED AT STANDBY SUPERVISOR(S)] --> 1004[STANDBY SUPERVISOR(S) ELECT ONE OF THEM TO BE THE NEWLY ACTIVE SUPERVISOR]
    1004 --> 1006[STP ENGINE AT THE NEWLY ACTIVE SUPERVISOR BEGINS RUNNING]
    1006 --> 1008[STP ENGINE QUERIES LINE CARDS TO RETRIEVE THEIR CURRENT SEQUENCE NUMBERS]
    1008 --> 1010{IS ANY RETRIEVED SEQUENCE NUMBER GREATER THAN THE SEQUENCE NUMBER AT THE NEWLY ACTIVE SUPERVISOR?}
    1010 -- No --> 1016[ ]
    1010 -- Yes --> 1012[ ]
    1012 --> 1014[TRANSITION PORTS OF EACH SUCH LINE CARD CARD TO BLOCKING]
    1014 --> 1018[ ]
    1018 --> 1020{ARE THERE ANY "OPEN" EVENTS?}
    1020 -- No --> 1024[ ]
    1020 -- Yes --> 1022[FOR EACH OPEN EVENT, UPDATE PORT STATE INFORMATION AND ASSERT THE HIGH AVAILABILITY RECOVERY PENDING FIELD]
    1022 --> 1026[ ]

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TO FIG. 10B

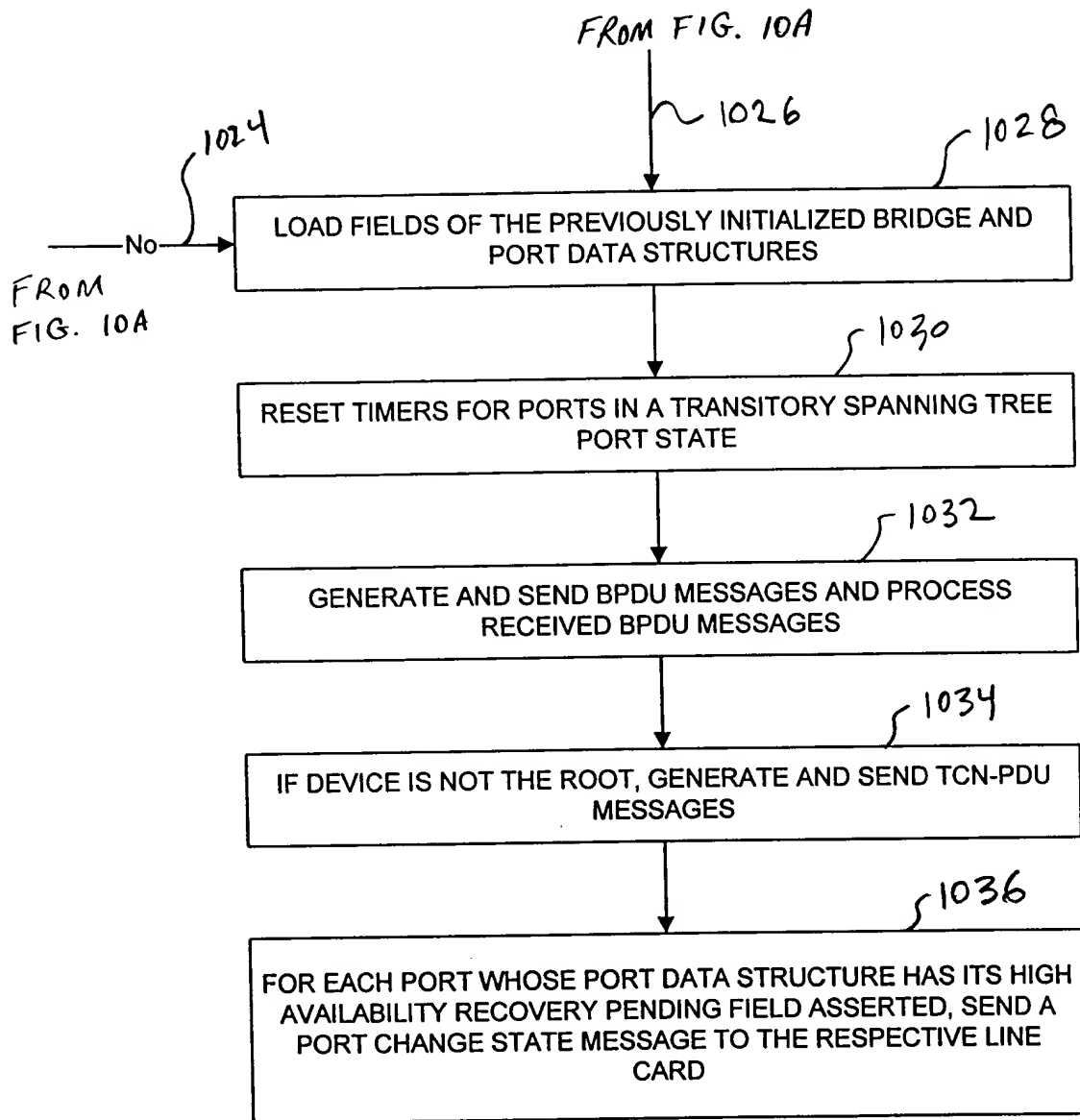


FIG. 10B

